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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/730,177      | 12/05/2000  | Chang Hyun Lee       | SO-405              | 8039             |

7590                    02/13/2002

Transnational Enterprises, Inc.  
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Melbourne, FL 32901

[REDACTED] EXAMINER

GRANT, ALVIN J

| ART UNIT | PAPER NUMBER |
|----------|--------------|
| 3723     |              |

DATE MAILED: 02/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                           |                     |
|------------------------------|---------------------------|---------------------|
| <b>Office Action Summary</b> | <b>Application No.</b>    | <b>Applicant(s)</b> |
|                              | 09/730,177                | LEE ET AL.          |
|                              | Examiner<br>Alvin J Grant | Art Unit<br>3723    |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on \_\_\_\_\_.
- 2a) This action is FINAL.                  2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1 through 7 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
 \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### ***Specification***

35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are:

- Page 5, lines 12 through 16. "The above object is also achieved according to the third aspect of the invention by a saw blade, wherein the shape and basic arranging principle of wings are the same as in the foregoing two, particularly first aspect, except that.....".
- Page 6, lines 24 and 25. "And the particulate bearing layer is composed of a continuous ring 21 having a fixed width and being located .....".
- Page 7, lines 19 through 22. "As is clear, wings having the same shape and size are arranged uniformly over the circumferential surface between the inner ring 21 and the outer periphery of the steel disc 10.".
- Page 9, lines 19 through 21. "As the result of tests, the sandwich-type saw blade showed minor wobbling phenomena and the ordinary steel saw blade showed intense wobbling phenomena.".

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract was found to be lengthy and consists of more than one paragraph.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

Referring to claim 1 and 2 the use of parentheses as in the case of "front" and "back" renders the claim indefinite.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Claims 1, 2, 3, 5 and 6 are rejected under 35 U.S.C. 102(a) as being anticipated by Ji U.S. Patent No. '017 B1.

Ji discloses a diamond tip disc saw blade (see figure: 2) comprising: a steel circular disc (10); an opening at the center (11); diamond particled cutting segments (12) attached at predetermined intervals along the periphery of the disc; the particulate bearing layer comprising circular rings of fixed widths; a plurality of streamlined wings (3) located on both sides of the blade a predetermined intervals; and the wing on one side is overlapped with those on the other side (as explained in lines 27-30 of section 1); the wings have different centers of curvature and different radii of curvature so that they become wider as the distance from the ring to the periphery changes; and the wings contain through holes.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ji in view of Schweickhardt U.S. Patent No. '796.

Ji is described above. Ji does not disclose a saw blade with a circular disc containing slits at predetermined intervals around the periphery, nor did he disclose a number of through holes located on the disc, but Schweickhardt does. Furthermore it would have been obvious to one of ordinary skill in the art at the time the invention was made modify the invention of Ji to include slits and additional holes to improve the cutting ability and heat dissipation of the blade as taught by Schweickhardt. Schweickhardt further teaches that the shapes of the holes is a matter of choice.

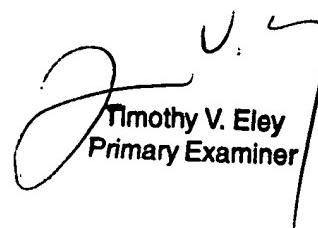
### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alvin J Grant whose telephone number is (703) 305-3315. The examiner can normally be reached on Mon.-Fri 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (703) 308-2687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3588 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1184.

ajg  
February 11, 2002

  
Timothy V. Eley  
Primary Examiner